

S/N 09/945,394

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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| Applicant: | Steve Van Kirk | Examiner: | Tuan Dinh |
| Serial No.: | 09/945,394 | Group Art Unit: | 2841 |
| Filed: | August 30, 2001 | Docket: | 303.755US1 |
| Title: | CIRCUIT BOARD PLANE INTERLEAVE APPARATUS AND METHOD | | |

PRE-APPEAL BRIEF REQUEST FOR REVIEW

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In response to the Final Office Action mailed October 18, 2006, the Applicant requests review of the final rejection of claims in the above-identified Application. No amendments are submitted with this Request, which is filed with a Notice of Appeal for the reasons stated below.

Claim 20 has been rejected under 35 USC § 102(b) as being anticipated by Kumagai et al. (U.S. Patent No. 6,147,573, hereinafter "Kumagai"). According to the Official Gazette notice that made the Pre-Appeal Brief Conference Program effective, the conference should be used when one or more rejections are "based upon clear legal or factual deficiency in the rejections rather than interpretation of the claims or prior art teachings." In other words, in situations where "a limitation is not met by a reference ...". Official Gazette Notices - 12 July 2005. Because several claimed limitations are clearly not met by Kumagai, and thus, because the Office has not properly established a *prima facie* case of anticipation, the Applicant respectfully traverses this rejection.

Kumagai teaches a multilayer electronic body 24 to be mounted to a printed circuit board 9. *See* Kumagai, FIG. 1D and Col. 4, lines 5-7. The body 24 is made from coil conductors 2 formed on green sheets 1 and connected to each other using through-holes 3 to form a coil 40. *See* Kumagai, FIGs. 1A, 1C; and Col. 4, lines 13-21, and 52-55. In FIG. 3B, cited by the Office, terminal electrodes 20 are connected to each end of the coil 40 with leading conductors 29. *See* Kumagai at FIGs. 1C and 3B; Col. 4, lines 52-55; and Col. 6, lines 26-34. In FIG. 3C, cited by the Office, Kumagai teaches forming a capacitor 28 connected to the coil 40 using a leading conductor 29. *See* Kumagai, Col. 7, line 64 – Col. 8, line 1.

It is asserted in the Final Office Action that Kumagai's leading conductors 29 (see FIGs. 3B and 3C) are the same as the interstices 150, 160 (See Application, FIG. 4A) claimed by the

Applicant in claim 20. However, reading the cited portions of Kumagai reveals that such is not the case.

First, it is respectfully noted that independent claim 20 includes the following limitation: “a second conductive layer including a second interstice engaged with the first interstice”. Thus, the first and second interstices are *engaged* (see Application, Figure 4A, elements 150, 160). To be “engaged” means “meshed,” which in turn, means “interlocked.” *See Webster’s Ninth New Collegiate Dictionary*, G. & C. Merriam Company, pgs. 412 and 744, 1983. In other words, if one were to attempt to “pull” the conductive layers 110, 120 apart in the $\pm X$ direction in Application FIG. 16, for example, the engaged interstices 150, 160 would prevent such separation. However, this cannot be said about the conductors 29 of Kumagai. These conductors 29, which simply serve to connect each end of the coil 40 with respective electrodes 20, are not engaged in any sense of the word. *See Kumagai*, Col. 4, lines 50-55, and FIGs. 3B, 3C.

It is respectfully noted that the interpretive reference upon which the Office relies, referred to as the “attached paper of site Answers.com” in the Final Office Action, was not included in the materials mailed to the Applicant. The USPTO Private PAIR records also do not appear to include this reference.

Second, the body 24 and conductors 29 do not provide “a first conductive layer including a first interstice, wherein the first interstice has a plurality of widths laying in a first plane ... a second conductive layer including a second interstice ... wherein the second interstice has a single second width laying in a second plane ... and a dielectric layer disposed between the first and second interstices to form a capacitor, wherein the first and second planes are substantially parallel, and wherein the second width substantially overlaps at least two of the plurality of widths” as claimed by the Applicant, and alleged in the Final Office Action.

While an embodiment having this type of construction is described in the Application at pg. 18, line 19 – pg. 19, line 29 (and shown in FIGs. 15 and 16), there is no evidence that such is provided anywhere within the bounds of Kumagai. Essentially, it is impossible for the conductors 29 to have any kind of “plurality of widths” as claimed by the Applicant.

It is respectfully noted that anticipation under 35 USC § 102 requires the disclosure in a single prior art reference of each element of the claim under consideration. *See Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987). It is

not enough, however, that the prior art reference discloses all the claimed elements in isolation. Rather, “[a]nticipation requires the presence in a single prior reference disclosure of each and every element of the claimed invention, *arranged as in the claim.*” *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (citing *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)) (emphasis added). “The *identical invention* must be shown in as complete detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989); MPEP § 2131 (emphasis added).

Finally, while claims during examination should be interpreted as broadly as their terms reasonably allow, that interpretation must be tempered by the context in which the terms are used. The *Hyatt* court states that “during examination proceedings, claims are given their broadest reasonable interpretation consistent with the specification.” *In re Hyatt*, 211 F.3d 1367, 1372, 54 U.S.P.Q.2D (BNA) 1664, 1667 (Fed. Cir. 2000) (emphasis added) (“During examination proceedings, claims are given their broadest reasonable interpretation consistent with the specification.”; citing *In re Graves*, 69 F.3d 1147, 1152, 36 U.S.P.Q.2D (BNA) 1697, 1701 (Fed. Cir. 1995); *In re Etter*, 756 F.2d 852, 858, 225 U.S.P.Q. (BNA) 1, 5 (Fed. Cir. 1985) (en banc).).

The interpretation of the term “interstice” and “plurality of first widths” proffered by the Office is neither reasonable, nor consistent with the specification. It is not reasonable because it does not encompass the meaning of the terms as understood by those of ordinary skill in the art, and confirmed by a standard dictionary, above. It is not consistent with the specification because it is apparent from viewing FIGs. 15 and 16 of the Application that the claimed relationship between the Applicant’s layers 110, 120; interstices 150, 160; and widths W5, W6 are not anything like what is asserted by the Office with respect to Kumagai. *See* Application, pg. 18, line 19 – pg. 19, line 29; *see also* Application, pg. 9, lines 5-18 and FIG. 4A. For example, while the Applicant claims “a dielectric layer disposed between the first and second interstices to form a capacitor,” this type of function is impossible with the structure of Kumagai – placing a dielectric between the conductors 29 of Kumagai does not result in forming a capacitor. Rather, Kumagai provides a capacitor 28 using additional structure: by forming separate electrodes 33 on each side of a dielectric body 27. *See* Kumagai, Col. 7, line 64-Col. 8, line 4. Thus,

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characterizing Kumagai's conductors 29 as "interstices" that can be engaged or used to form a capacitor, or asserting that these conductors 29 have a "plurality of widths laying in a first plane" (as shown in FIG. 15 of the Application) is beyond that which should be reasonably permitted during examination.

Since Kumagai does not teach the existence of engaged interstices, nor interstices that have a plurality of widths, what is disclosed by Kumagai is not identical to the subject matter of the embodiment claimed, and thus, the rejection of claim 20 under § 102(b) is improper. Reconsideration and withdrawal of the rejection under § 102 as a result of this Pre-Appeal Brief Request for Review is respectfully requested.

CONCLUSION

The Applicant respectfully submits that all of the pending claims are in condition for allowance, and such action is earnestly solicited. The Examiner is invited to telephone the undersigned at 210-308-5677 to facilitate prosecution of this Application. If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 6 day of December 2006.

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